

URBAN COAST INSTITUTE Annual Report 2017

Our Mission

To serve Monmouth University and the public as a forum for research, education and collaboration in the development and implementation of science-based policies and programs that support stewardship of healthy, productive and resilient coastal ecosystems and communities.

UCI Staff

Tony MacDonald, Esq. Director

Thomas Herrington, Ph.D Associate Director

Doris Meyer *Administrative Assistant*

Jim Nickels Marine Scientist

Karl Vilacoba Communications Director



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>NJ OCEAN ECONOMY AT A GLANCE

124,000 Ocean-Dependent Jobs

\$8.1 Billion Annual GDP

3.3 Million Employed in Coastal Counties

Source: Mid-Atlantic Blue Ocean Economy 2030 Forum



Facing Sea Changes

These are busy times for the UCI's work in coastal and ocean policy as we face many challenging issues. One year after President Trump's inauguration, the administration's ocean priorities are still evolving; however, on some issues, such as proposals for offshore drilling, we have seen significant changes. New Jersey Governor Phil Murphy has signaled that major shifts in marine environmental policy are on the way. Regardless of political winds, there is a growing demand for improved ocean data and information to inform decisions such as where to place offshore wind farms, how to address the impact of sea level rise on coastal communities, and the future health of fish stocks and employment connected to commercial fishing.

Since the Urban Coast Institute's founding in 2005, we have seen three occupants of the White House and four New Jersey governors. Through it all the UCI has been a constant, connecting policymakers at all levels of government with the best available science.

This year, thanks to generous support from donors and successful grants, Monmouth University and the UCI have expanded our capacity to address these issues, while improving faculty and student engagement. We recently welcomed our first Associate Director, Thomas Herrington, who has elevated our ability to work with coastal communities on resilience and beach management issues. With UCI support, the School of Science hired Dr. Jason Adolf as its first endowed professor of marine science. A widely respected expert in phytoplankton, Adolf will focus on important research questions for our region, such as the root causes and best ways for dealing with harmful algae blooms. The acquisition of a new 49-foot research vessel, the *Nauvoo*, will make it possible for us to involve many more students, conduct research at a greater scale and open new opportunities for collaboration.

There are many critical questions that need immediate attention. Do our existing regulations support a vibrant blue economy? Are we taking the steps necessary to adapt to sea level rise? Will we be able to build on recent successes working with the Mid-Atlantic states on ocean planning?

We look forward to fostering these important dialogues in 2018 and appreciate your continued support, which makes it possible.



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TONY MACDONALD

Director, Monmouth University

Urban Coast Institute

Exploring Our Shore: Student Summer Research



If you take a Fourth of July weekend swim in Cape May, chances are you won't be alone. The Delaware Bay is one of the country's top nursery grounds for sand tiger sharks and New Jersey's coastline acts as a migratory highway for a number of shark species moving between their seasonal habitats.

This was evident last summer as Dr. Keith Dunton and a team of students reeled in sand tigers, sandbars and other sharks at will from Jersey Shore beaches before tagging and returning them safely to the sea. Their work is helping shed new light on the behaviors, movements and diets of these migratory predators, as well as the demographics of the sharks and rays near the Jersey Shore.

Each summer the UCI makes dozens of projects like these possible through its Marine Science and Policy Initiative and Heidi Lynn Sculthorpe Summer Research Program. The grant programs ssupport the work of students and faculty mentors

of all academic disciplines on research projects they've designed and proposed. The Initiative also offers Faculty Enrichment Grants that support the enhancement of existing curriculum, new curriculum development, research and scholarship, and team-teaching opportunities.

The summer research projects frequently make an important impact in the communities where they take place, imparting valuable lessons to students about coastal stewardship along the way. The hands-on, outside-the-classroom nature of the projects also embody Monmouth University's commitment to experiential learning.

Last year's slate of summer research projects was the most diverse yet, with activities ranging from mapping the bottoms of local lakes to the creation of video games dedicated to coastal resilience topics.

2017 Summer Research and Faculty Enrichment Grants

Student Research Grants

Assessing Coastal Lakes in Monmouth County

Students: Erin Conlon and Daniel Gerdon Faculty/Staff: UCI Marine Scientist Jim Nickels

Bathymetry and Flood Mapping of Lake Como, N.J.

Students: Thomas Candiloro

Faculty/Staff: Dr. Geoffrey Fouad, Dept. of History and

Demographics of the Land-Based Recreational Hook-and-Line Shark Fisheries within New Jersey

Students: Gina Badlowski, Jarius Bradley, Marissa DeTorre, Alex Salamone

Faculty/Staff: Dr. Keith Dunton, Dept. of Biology

Hurricane Sandy Coast Guard Emergency Response Serious Game

Students: Aidan Brown, Evan Frederickson, Ryan Gilmartin, Veronica Granite

Faculty/Staff: Professor Jodee Vallone, Dept. of Computer Science & Software Engineering

Hurricane Sandy Firefighter Emergency Response Serious Game

Students: Aidan Brown, Evan Frederickson,

Ryan Gilmartin, Veronica Granite

Faculty/Staff: Professor Jodee Vallone, Dept. of Computer Science and Software Engineering

Impacts of Salt on Juvenile Trees of New Jersey **Maritime Forests**

Students: Jeff Dudek, Kelsey Connelly and

Matthew Francis

Faculty/Staff: Dr. Pedram Daneshgar, Dept. of Biology

Seasonal Diet and Prey Selectivity of Atlantic Sturgeon in a Coastal Marine Aggregation

Students: Marissa DeTorre

Faculty/Staff: Dr. Keith Dunton, Dept. of Biology

Trends in the Abundance and Spatial-Temporal Variation of Sharks and Rays in New Jersey Coastal Waters

Students: Gina Badlowski and Jarius Bradley Faculty/Staff: Dr. Keith Dunton, Dept. of Biology

3D Serious Building Game Demonstrating FEMA Methodologies to Reduce Severe Flood and Storm **Damage to Homes**

Students: Luke Tomkus

Faculty/Staff: Professor Jodee Vallone, Dept. of Computer Science & Software Engineering

3D Hurricane Escape Mobile Application Using New Jersey's Evacuation Routes

Students: Roberto Tanenbaum

Faculty/Staff: Professor Jodee Vallone, Dept. of Computer Science & Software Engineering

Faculty Enrichment Grants

Evaluating Essential Finfish Habitat and Movements within the Leased New York Wind Energy Area

Faculty/Staff: Dr. Keith Dunton, Dept. of Biology

Exploring the Factors that Affect Juvenile Tree Growth and Survival in a Maritime Forest

Faculty/Staff: Dr. Pedram Daneshgar, Dept. of Biology

Publication of Lake Como Hydrology Research Faculty/Staff: Dr. Geoffrey Fouad, Dept. of History and

Anthropology

Mathematical Modeling of Research Questions Related to Local Water Bodies

Faculty/Staff: Dr. Joseph Coyle, Dept. of Mathematics

Monmouth/Ocean Coastal Community Database

Graduate Assistants: Christopher McKenna and Zahra

Faculty/Staff: Dr. Susan Forquer Gupta, Dept. of

Marketing and International Business





Expanding Opportunities for Marine Field Research



Introducing the R/V Nauvoo

Monmouth University's acquisition of the 49-foot *Research Vessel Nauvoo* will make it possible for the UCI to conduct its research, educational and contract work at a larger scale than ever before.

The *Nauvoo* joins two smaller UCI-maintained vessels that have long served as the workhorses of its marine field operations and research – the 18-foot *Little Hawk* and 27-foot *Seahawk*. The vessel will substantially enhance in-house research and monitoring capabilities to meet increasing faculty and student demand within the School of Science's Marine and Environmental Biology and Policy

The vessel will make it possible to take full classes and large groups on the water and work on the open ocean up to 20 nautical miles offshore.

Program. The vessel will make it possible to take full classes and large groups on the water and work on the open ocean up to 20 nautical miles offshore. Thanks to a grant from the Fairleigh S. Dickinson, Jr. Foundation, the vessel will be equipped for safe navigation and ready to take full classes of students out to sea in the spring of 2018.

The vessel is outfitted with state-of-the-art side-scan sonar technology that provides highly detailed views of underwater terrains. The system will provide critical support for in-house scientists and students, and additional capacity to work collaboratively with government agencies, academic institutions and NGOs on areas of critical concern such as oyster restoration, shore erosion, and channel shoaling.

Originally built as a U.S. Coast Guard buoy tender, the *Nauvoo* was later transferred to the National Oceanic and Atmospheric Administration (NOAA), which provided it to the University in the fall at no cost. We thank NOAA for this valuable contribution to the marine science and education efforts taking place at Monmouth University.

Coming to the Two Rivers: The Monmouth Marine and Environmental Field Station

Monmouth University and the Borough of Rumson are moving forward on plans to develop a new Monmouth Marine and Environmental Field Station on municipal property located on the banks of the Navesink River. The facility will provide unique opportunities for scientific research





and educational collaboration between the professionals and students of the University and local schools.

Tentative plans call for the addition of classroom, laboratory and meeting space above an existing sewer pump station behind the municipal building. The facility is located adjacent to the public boat ramp on the Navesink River, which will provide convenient water access for the university's research vessels.

The UCI and School of Science have long used the boat ramp as a launch point for research in area water bodies such as the Navesink and Shrewsbury rivers, the Sandy Hook and Raritan bays, New York Harbor and the Atlantic Ocean. The University has already been granted access to the property to store vessels and other scientific equipment.

The University and Rumson will continue to collaborate on a site plan, a timetable, and fundraising to support the field station project.

To learn more about how you can support this effort, contact the UCI at (732) 263-5662.

Leading Coastal Communities Toward Resilience



October marked the fifth anniversary of Superstorm Sandy's landfall in New Jersey. Residents had never before dealt with a storm of its magnitude, and the storm yielded many lessons on the region's vulnerabilities and effective response strategies. The UCI is committed to sharing the best available science and policy information with the public and government officials so they can better prepare their communities for future storms.

To that end, the UCI hosted a roundtable discussion at Monmouth University in December focused on coastal community resilience financing mechanisms that could work in New Jersey and the elements necessary for their success. The event gathered many of the state's top tax, finance, real estate, land use, resilience and municipal government experts. It is not enough to understand the physical impacts of sea level rise and coastal storms — we also need to identify innovative ways that communities can finance appropriate mitigation and adaptation measures.

Above (I-r), UCI
Director Tony
MacDonald, New
Jersey State
Sen. Bob Smith,
Monmouth Beach
Mayor Susan Howard
and UCI Associate
Director Thomas
Herrington discuss
coastal resilience
at the 2017 New
Jersey State League
of Municipalities
Conference.

UCI Communications Director Karl Vilacoba hosted a miniseries of webinars that explored best practices for communicating the risks that major coastal storms present to the public. In these sessions, experts demonstrated mapping tools throughout the Mid-Atlantic that illustrate flooding and sea level rise projections and discussed what information was and was not effective in prompting residents to make decisions that protected themselves, their loved ones and their properties during Sandy.

Speaking with an audience of coastal community leaders, UCI Director Tony MacDonald and Associate Director Thomas Herrington shared their views on future challenges for funding resilience and beach replenishment projects on a panel at the New Jersey State League of Municipalities Conference in Atlantic City.

In addition, MacDonald, who serves on the Advisory Committee of the New Jersey Climate Adaptation Alliance and the UCI, is an active member of the New Jersey Coastal Resilience Collaborative. Networks of policymakers, public and private sector practitioners, academics and NGOs work with both organizations to build climate change preparedness in New Jersey by informing policy and assisting communities in resilience planning. Through stakeholder engagement, the Alliance and Collaborative encourage the use of the best available science for the adoption of policies and actions that will reduce risk and vulnerability to future climate change impacts and storm events.



High Water Mark Initiative Honored for Innovation

The UCI was among a team of partners honored with Sustainable Raritan's Government Innovation Award for a project that is raising awareness among shore residents, visitors and public officials about the risks of coastal flooding. The Monmouth County High Water Mark Initiative is a unique public education effort that encourages smart mitigation actions while also saving property owners significant sums of money via lower flood insurance premiums.

Monmouth University students and the UCI worked with Monmouth County, FEMA and the New Jersey Sea Grant Consortium to place signs throughout 15 county municipalities showing where floodwaters reached during Hurricanes Irene and Sandy. The signs provide a vivid reminder of the steps necessary for waterfront communities to protect themselves against powerful coastal storms in the future.



Beach Access Law Made Simple

The right of citizens to stroll along the beach unhindered by "Keep Off" and "Private Property" signs; to walk across the dry sand to reach the ocean and swim, surf or fish; or to set a blanket down on the sand and spend the day sunbathing are all governed by one legal principle: the Public Trust Doctrine. The need to understand and protect these rights grows each year as more people move to and vacation in coastal communities and the competition for limited waterfront resources increases. Despite its importance, the Public Trust Doctrine and the rights it establishes remain widely misunderstood.

The UCI helped demystify 200 years of legal precedents with the release of *A Practical Guide to Beach Access and the Public Trust Doctrine in New Jersey*. The guide is intended for citizens and visitors to the Jersey Shore as well as the municipalities that serve as their hosts.

It clarifies the rights established through the Public Trust Doctrine by explaining its basis and origins, reviewing 10 of the most influential court decisions, and providing a series of FAQs on real world public access situations. The document will be updated periodically to reflect new legal developments and information.



To read or download the guide, visit Monmouth.edu/UCI and click on our Publications & Reports page. Hard copies may also be requested at uci@monmouth.edu.



Bridging Communities and the Campus



The UCI is committed to an educational role that extends beyond the classroom to the vibrant shore communities that surround our beautiful campus in West Long Branch. Each year, the UCI organizes public events that serve as a valuable opportunity for dialogue on ocean issues as well as a showcase for Monmouth University's outstanding facilities and programs.

The UCI's signature annual event, the Future of the Ocean Symposium and Champion of the Ocean Awards, is also its most important fundraiser for student-faculty summer research opportunities. This year the UCI presented its highest honor, the National Champion of the Ocean Award, to Dr. Biliana Cicin-Sain, founder of the Global Ocean Forum and Director of the Gerard J. Mangone Center for Marine Policy at the University of Delaware; and Barry Gold, environmental program director for The Walton Family Foundation.

Our Spring Film Series drew hundreds of visitors to campus for a trio of educational documentaries. They included screenings of *A Plastic Ocean*, co-hosted with Clean Ocean Action; *Ocean Frontiers III*, co-hosted with Green Fire Productions and several other partners; and *Les Saisons (Seasons)*, presented by Rockefeller University Program for the Human Environment Director Jesse Ausubel, who served as a scientific advisor on the film.

The UCI also co-sponsored the Eminent Domain and the City conference with the University's Department of History and Anthropology, Kislak Real Estate Institute, Leon Hess Business School, and Wayne D. McMurray School of Humanities and Social Sciences. The conference examined the economic, political, environmental, social and cultural impacts of the use of eminent domain, including in beachfront areas.



Monmouth-Rockefeller Partnership Hits Full Stride

The year 2030 is not far off, but changes in science, technology and the environment will by then have established a new normal for ocean-dependent industries. In October, leaders from marine sectors such as shipping, homeland security, fishing, science, travel and tourism convened at Monmouth University to develop a better understanding of the trends that will impact the blue economy in the coming years and what they can do to prepare.

The Mid-Atlantic Blue Ocean Economy 2030 forum was the second of four annual conferences co-hosted by the UCI and The Rockefeller



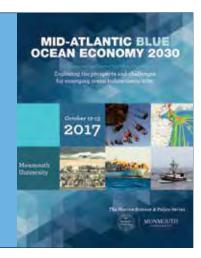
University Program for the Human Environment on rotating campuses. The MU-RU partnership is one of several strategic programs and enhancements made possible through the UCI's Marine Science and Policy Initiative.

Under the direction of Monmouth University President Emeritus and UCI Ocean Policy Fellow Paul G. Gaffney II and RU Professor
Jesse Ausubel, the partnership has
advanced cutting-edge research
projects on topics including
ocean noise, emerging marine
exploration technologies and
the use of environmental DNA
fragments (eDNA), to detect
the presence of aquatic species.
The partnership has given
students access to national and
international experts, and engage
in complementary programs that
reflect the priorities and strengths
of each institution.

The next Monmouth-Rockefeller symposium will be held in New York City this fall and focus on scientific research and applications of eDNA. The first event, the National Ocean Exploration Forum, was held in 2016 on the RU campus in Manhattan.

Mid-Atlantic Blue Ocean Economy 2030 Forum Online

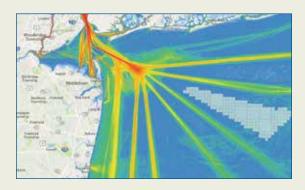
Browse our full library of panel videos, discussion papers, presenter slides and additional multimedia from this event at Monmouth.edu/uci/symposium2017.



Making Waves:

The Mid-Atlantic Ocean Data Portal

Even in this wireless age, underwater cables carry almost all of our overseas phone calls and Internet communications. The exploding need for additional capacity along the East Coast recently prompted the construction of two new ultra-high speed fiber optic cables from Virginia Beach to Spain and Brazil, and the Mid-Atlantic Ocean Data Portal served as an important tool for guiding their alignments. The Portal helped engineers avoid conflicts with sensitive areas such as military training zones and fishing grounds where bottom-tending gear is frequently used.



Now housing a collection of over 3,000 interactive data maps, the Portal (portal.midatlanticocean.org) has matured from a technology under development to one that is guiding everyday decisions. The UCI served as the Portal project's principal investigator, working with Rutgers University, The Nature Conservancy and EcoTrust to build the site under the guidance of the Mid-Atlantic Regional Council on the Ocean (MARCO). Here are some additional examples of the Portal's recent impacts:

- The U.S. Coast Guard and maritime industry stakeholders are using the site to plan new routes that will steer safely clear of planned offshore wind areas in the Mid-Atlantic region.
- Researchers from the nonprofit Gotham Whale are using Portal data to identify and build awareness of high-risk areas for marine mammal ship strikes in the New York Harbor vicinity.

- The Portal Team collaborated with the Mid-Atlantic Coastal Acidification Network to create a group of maps that will help researchers understand where monitoring gaps for ocean acidification may exist in the region.
- The site served as a centerpiece in a professional development course for New York K-12 teachers dedicated to the Hudson Canyon's importance as a natural and economic resource.

In 2017, UCI staff helped conduct Portal training sessions for state agency personnel in Delaware, Maryland, New Jersey, New York and Virginia, as well as special sessions for the Navy in Norfolk, Va., and environmental NGOs in New York City.

The UCI's ocean planning work is supported by a generous grant from the Gordon and Betty Moore Foundation.

The Portal includes online tutorials for all interested users. See: **portal**. **midatlanticocean.org/how-use-portal**. If you are interested in scheduling an in-person or online training session for your team, contact the UCI's Karl Vilacoba at **kvilacob@monmouth.edu**.



The UCI has begun work with the Hudson River Foundation and other partners on a three-year study of sediment contamination levels in New York Harbor and its tributaries. The UCI received a \$4 million grant from the New Jersey Department of Transportation for the project in the spring.

The research will focus on navigation channels that are periodically dredged by the U.S. Army Corps of Engineers to ensure they're deep enough for container ships, tankers and other large vessels traveling to and from the Port of New York and New Jersey.

Ultimately, the three-year project will help determine whether dredged materials in these areas are clean enough to deposit at sea. Arrangements must be made to move sediments that do not meet

ocean disposal standards to suitable sites on land.

The work will build upon a 2002 project that modeled the rates in which remediation efforts and natural processes would improve the quality of sediments in these areas.

This latest project would revisit the accuracy of the models based on new and recent sampling and consider how unforeseen factors such as Superstorm Sandy and Hurricane Irene may have impacted contamination levels. The UCI and the Hudson River Foundation are co-leaders of the project, with a team that also includes researchers from Manhattan College, Rutgers University, the University of Rhode Island and two private consultants, Simon Litten and HDR, Inc.

UCI Marine Scientist Jim Nickels will lead the field sampling activities, with Monmouth University student researchers participating under his guidance.

>MID-ATLANTIC MARINE TRANSPORTATION/SHIPPING AT A GLANCE

97,000 Jobs

\$7.2 Billion Wages

\$14.6 Billion GDP

Source: Mid-Atlantic Blue Ocean Economy 2030 Forum



New Capacity through Endowments

The Monmouth University School of Science welcomed its first endowed professor of marine science, Dr. Jason Adolf, in 2017 with funding provided through the UCI's Marine Science and Policy Initiative. In addition, a second endowed position, the Rechnitz Family Urban Coast Institute Chair in Marine and Environmental Law and Policy, will be filled in 2018, thanks to the generosity of Joan and Robert Rechnitz.

In his new position, Adolf is teaching upper level courses



within the Biology Department, working collaboratively with the UCI, mentoring and advising undergraduates, and developing innovative new courses that complement and diversify the school's Marine and Environmental Biology and Policy curriculum. He will also develop and lead innovative scientific projects with student support, including cooperative

research with the National Oceanic and Atmospheric Administration James J. Howard Marine Sciences Laboratory at Sandy Hook.

The Marine Science and Policy Initiative is the product of a 2014 challenge grant campaign, in which several private and corporate donors matched a generous anchor gift from the Rechnitz family.

The new endowed chair position will entail teaching courses related to the environment and law, while collaborating with the UCI on research concerning environmental law, policy and regulatory matters.

Herrington Named UCI Associate Director

The UCI continued its growth as a leading research and policy center with the addition of Thomas Herrington as its first associate director in May. Herrington has extensive experience working at the state, regional and national level and is one of New Jersey's leading experts on coastal processes, beach management and ocean engineering.

Prior to joining the UCI, Herrington served as the director of the ocean engineering graduate program at the Stevens Institute of Technology from 2007-17 and the director of the New Jersey Coastal Protection Technical Assistance Service from 2002-17. He has more than 25 years of experience in coastal sustainability and hazard mitigation research, including the analysis of storm surge and wave impacts on coastal communities. Herrington was already well acquainted with the UCI, having served as a member of its Advisory Committee.

Herrington is working closely with UCI staff, Monmouth University faculty, students and other partners to help find solutions to the challenges facing coastal communities, sustainable coastal economies and health ocean ecosystems.



A Coastal University Sampler

The ocean plays
a starring role
in these unique
courses supported
by the UCI at
Monmouth
University.

MARITIME ARCHAEOLOGY

Explore underwater wrecks off the Jersey Shore in this course taught by Professor Richard Veit and UCI Marine Scientist Jim Nickels.

LIFE'S A BEACH

This course designed by Professor Heidi Bludau will open your eyes to the ocean's influence on life and culture in coastal regions around the world, including the Jersey Shore.

FIELD METHODS IN MARINE SCIENCE

Dress appropriately, because many days in this course taught by UCI Marine Scientist Jim Nickels will be spent on the *R/V Seahawk* and experimenting with the latest technologies in local waters.

MARINE APPLICATIONS OF GIS

Mid-Atlantic Ocean Data Portal team member Jennifer Whytlaw shows how to use the site and other GIS mapping tools for coastal management work.

OCEANOGRAPHY

New Jersey's shoreline to the deep sea canyons, learn about the physical characteristics of oceans with UCI Associate Director Thomas Herrington.



BIOSTATS

Design and carry out research questions centered on coastal forests in places like Island Beach State Park and Sandy Hook in this part-math, part-bio course created by School of Science Professors Pedram Daneshgar and Richard Bastian.

MONMOUTH UNIVERSITY

URBAN COAST INSTITUTE

Yearbook









- Sossie and Tavit Najarian and UCI Ocean Policy Fellow Paul G. Gaffney II enjoy the Champion of the Ocean Awards dinner.
- 2. UCI Marine Scientist Jim Nickels enjoys a light moment aboard the *Seahawk*.
- 3. UCI Director Tony MacDonald and The Nature Conservancy's Jay Odell discuss Mid-Atlantic fisheries at a conference at Rutgers University.
- 4. Dr. Donald Boesch and Lillian Borrone of the Joint Ocean Commission Initiative deliver closing remarks at the Mid-Atlantic Blue Ocean Economy 2030 forum.
- 5. Dr. Keith Dunton and students use a longline while researching fish populations near Sea Bright aboard the *Seahawk*.
- 6. MacDonald and 2017 National Champion of the Ocean honorees Biliana Cicin-Sain and Barry Gold.





Financial Summary: 2017 Funding Sources

The Urban Coast Institute's work is made possible through a combination of funding from grants, donations, the Marine Science & Policy Initiative, Monmouth University and vessel contracts. The Marine Science & Policy Initiative was launched following a successful \$5 million challenge grant campaign in 2014, and supports many of the student activities, Monmouth-Rockefeller University research efforts and faculty projects described earlier in this report. The chart below reflects the percentage of UCI funding received and dedicated by category in 2017.

48% Grants & Contracts

29% Marine Science & Policy Initiative

18% University

5% Gifts & Donations

Give a Gift Now

Your gift to Monmouth University has a direct impact on the lives of students. If you would like to make a tax-deductible gift to the Urban Coast Institute, please use the contribution form at the link listed below. Monetary gifts to the Urban Coast Institute support the Heidi Lynn Sculthorpe Summer Research Grants, the Marine Science & Policy Initiative and UCI operations.

www.monmouth.edu/university/give



Staff Public Engagement and Service

TONY MACDONALD, ESQ.

NOAA Integrated Ocean Observing System, National Advisory Committee

NJ Climate Adaption Alliance, Advisory Committee Coastal States Stewardship Foundation, Board Member

NY/NJ Baykeeper, Board Member

US Global Change Research Program, 4th National Climate Assessment, Northeast Chapter, co-author (draft review)

THOMAS HERRINGTON, Ph.D.

American Shore and Beach Preservation Association, Board Member

NJ Sea Grant Consortium, Board Member, Coastal Community Resilience Specialist

American Geophysical Union Thriving Earth Exchange Scientist

Jersey Shore Partnership Board of Directors

FEMA Coastal Outreach Advisory Team

Journal of Marine Environmental Engineering Editorial Board member

Northeast Shore & Beach Preservation Association, Vice President

Jamaica Bay Science and Resiliency Institute Project Advisory Committee member

VICE ADMIRAL PAUL G. GAFFNEY II, USN (RET.)

Rockefeller University-Monmouth Marine Science and Policy Initiative (co-lead with RU Professor Jesse Ausubel)

National Academy of Science, Gulf Research Program, Advisory Committee; Chair, Committee on Gulf of Mexico Loop Current Dynamics

Joint Ocean Commission Initiative, Leadership Committee

Ocean Exploration Trust, Board Member

NOAA Ocean Exploration Advisory Committee, immediate past Chair

JIM NICKELS

NJ Water Monitoring Council, Member

Barnegat Bay Partnership, Science and Technical Advisory Committee

Marine Academy of Science and Technology Advisory Board

UCI Advisory Committee

Kenneth Pringle, Chair

David Apy

Laura Brinkerhoff

Nancy Byrne Reinhart

Bradley Campbell

Jay Cosgrove

David Ennis

Alfred Ferguson

Russell Furnari

Nickitas Georgas

Frederick Kaeli Jr.

Richard Larrabee

Gordon Litwin

Rita Mangan

Tavit Najarian

Stephen Souza

Dennis Suszkowski

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